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Kiichiro Yamagishi

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EXAMINER

HAN, QI

ART UNIT

PAPER NUMBER

2654

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/697,146	Applicant(s) YAMAGISHI ET AL.	
	Examiner Qi Han	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-13,15-20 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 2, 9, 14, 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendments

2. This communication is responsive to the applicant's amendment dated 02/23/2005.
Applicant amended claims 1, 3-4, 6, 8, 13, 15-18, 20 and 25 (see pages 3-17).

Response to Arguments

3. Applicant's arguments filed 02/23/2005, have been fully considered but are moot in view of the new ground(s) of rejection, since the applicant amended all independent claims, which changes the claim scopes and introduces new issue(s) and/or new matter(s).
4. Since the applicant's arguments (see pages 17-21) are based on the amended claims, the response of these arguments is directed to the corresponding claim rejection (see below).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 2654

5. Claims 4-12 and 16-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 4 and 16, the new amended limitation “**classifying** said second **symbol strings** according to subject matter” introduces new subject matter, since it lacks specific support in the specification to describe how the symbol strings is classified. The closest disclosure (specification, page 15 and Fig.2) appears to only disclose a database with different data fields, which is not functionality of classifying the symbol strings. Therefore, the claimed limitation is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 8 and 20, the rejection is based on the same reason as described above, since the claims recite the same or similar limitation as claim 4.

Regarding the other dependent claims, the rejection is based on the same reason as described above, since the dependent claims inherit all limitations of their parent claims.

Claim Rejections - 35 USC § 103

6. Claims 1, 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al. (US 5,946,658) hereinafter referenced as Miyazawa, in view of Garner et al. ("A Theory of Word Frequencies and Its Application to Dialogue Move Recognition", Proceedings in

the 1996 International Conference of Spoken Language Proceeding, vol. 3, Oct. 1996, pp. 1880-1883) hereinafter referenced as Garner.

As per **claim 1**, Miyazawa discloses cartridge-based, interactive speech recognition method with a response creation capability (title), comprising:

“a voice input section inputting voice uttered by a user”, (column 6, lines 30-49 and Fig. 1, ‘input unit 1, which inputs the speaker’s voice’);

“a voice recognition processing section recognizing the voice inputted by the voice input section, and converting the recognized voice (speech) into an input symbol string”, (column 6, lines 30-49 and Fig. 1, ‘to recognize words spoken’, ‘speech recognition (converting the recognized voice) and dialogue management unit 4’, ‘recognizable words (symbol string)’);

“a conversation pattern processing section inputting said input symbol string from the voice recognition processing section, and outputting an output symbol string corresponding to said input symbol string based on a conversation pattern described in advance”, (column 4, lines 1-17 and Fig. 1, ‘conversation content storage for retaining canned context rules (broadly interpreted as conversation pattern(s) described in advance) and response procedures when recognized words or phrases (symbol string) are encountered (input)’, response data storage for retaining response voice vector data used in formulating an appropriate response to perceived and recognized words and corresponding context and action rules’; Fig. 1 and column 6, lines 38-42, ‘speech recognition and dialogue management unit 4’, ‘response (output) data memory unit 4, which stores pre-set (described in advance) response data (necessarily including symbol string, since it will output to a voice synthesis unit 6)’);

“a voice synthesis processing section converting said output symbol string from the conversation pattern processing section into voice”, (Fig. 1 and column 6, lines 38-42, ‘voice synthesis unit 6’);

“a voice output section outputting and uttering the voice from the voice synthesis processing section”, (Fig. 1 and column 6, lines 38-42, ‘voice output unit 7’); and

“a conversation characteristic control section grasping conversation characteristics of said user, and changing said output symbol string in accordance with the grasped conversation characteristics” (column 3, lines 19-67, ‘speech recognition and dialogue management... comprehends its meaning and determines a corresponding response’; column 5, lines 12-14, ‘conversation and response information can be changed or updated as the general culture (broadly interpreted grasped conversation characteristics) changes’; column 12, lines 20-22, ‘when a recognition word is determined, speech recognition and dialogue manager 4 comprehends (grasp) the meaning of the input voice, determine a response ... detects fluctuation data’),

But Miyazawa does not expressly disclose “the grasped conversation characteristics based on at least one of: a word used by the user with high frequency, ...”. However, this feature is well known in the art as evidenced by Garner who discloses ‘a theory of word frequencies and its application to dialogue move recognition’ (title), comprising calculating word number, relative frequency, words rank including the most frequent word (page 1881, section 2.2 to section 4.1), and using suitable distribution to model word frequencies for dialogue move recognition (page 1883, section 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa by specifically providing

Art Unit: 2654

information of frequent words, as taught by Garner, for the purpose of improving dialog move classification and topic identification (Garner: abstract).

As per **claim 13**, it recites a method. The rejection is based on the same reason as described for claim 1, because the claim recites the same or similar limitation(s) as claim 1.

As per **claim 25**, it recites a computer readable recording medium. The rejection is based on the same reason as described for claim 1, because the claim recites the same or similar limitation(s) as claim 1.

7. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al. (US 5,946,658) hereinafter referenced as Miyazawa, in view of Marx et al. (US 6,173,266 B1) hereinafter referenced as Marx, and Takebayashi et al. (US 5,577,165) hereinafter referenced as Takebayashi.

As per **claim 3**, Miyazawa discloses cartridge-based, interactive speech recognition method with a response creation capability (title), comprising:

“a voice input section inputting voice uttered by a user” (column 6, lines 30-49 and Fig. 1, ‘input unit 1, which inputs the speaker’s voice’);

“a voice recognition processing section recognizing the voice inputted by the voice input section, and converting the recognized voice (speech) into an input symbol string”, (column 6, lines 30-49 and Fig. 1, ‘to recognize words spoken’, ‘speech recognition (converting the recognized voice) and dialogue management unit 4’, ‘recognizable words (symbol string)’);

“a conversation pattern processing section inputting said input symbol string from the voice recognition processing section, and outputting an output symbol string corresponding to

Art Unit: 2654

said input symbol string based on a conversation pattern described in advance”, (column 4, lines 1-17 and Fig. 1, ‘conversation content storage for retaining canned context rules (broadly interpreted as conversation pattern(s) described in advance) and response procedures when recognized words or phrases (symbol string) are encountered (input)’, response data storage for retaining response voice vector data used in formulating an appropriate response to perceived and recognized words and corresponding context and action rules’; Fig. 1 and column 6, lines 38-42, ‘speech recognition and dialogue management unit 4’, ‘response (output) data memory unit 4, which stores pre-set (described in advance) response data (necessarily including symbol string, since it will output to a voice synthesis unit 6)’);

“a voice synthesis processing section converting said output symbol string from the conversation pattern processing section into voice”, (Fig. 1 and column 6, lines 38-42, ‘voice synthesis unit 6’);

“a voice output section outputting and uttering the voice from the voice synthesis processing section” (Fig. 1 and column 6, lines 38-42, ‘voice output unit 7’).

Even though Miyazawa discloses a storage section storing words relevant to words uttered by the user (column 18, lines 56-67, ‘conversation context memory 101 stores the information related to the kind of phrases which have been registered and the kind of responses that should be issued to each of theses registered phrase’), Miyazawa does not expressly disclose storing the words being “**synonyms**”, and “an association function section extracting the synonyms and relevant words synonymous with and relevant to words uttered by said user from said storage section” “based on” “said input symbol string from said conversation pattern processing section, and outputting said extracted synonyms and relevant words to said

Art Unit: 2654

conversation pattern processing section". However, this feature is well known in the art as evidenced by Marx who discloses system and method for developing interactive speech applications (title), comprising dialogue modules (abstract), processing user response by using synonyms (column 9, lines 30-39), editing items and synonyms of the vocabulary using a predefined system dictionary, listing synonyms under their items at an indented tier, and adding, deleting, highlighting (broadly interpreted as association function of extracting) synonyms of an recognized item (column 19, lines 16-33, and Figs. 12 and 13), which corresponds to the claimed limitation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa by specifically providing storing and extracting synonyms and relevant words for the recognized words, as taught by Marx, for the purpose of offering alternative terms of the recognized items for a dialogue module (Marx: column 19, lines 10-13).

But, Miyazawa in view of Marx does not expressly disclose the association function section using "a conversation history". However, this feature is well known in the art as evidenced by Takebayashi who discloses speech dialogue system for facilitating improved human-computer (title), comprising that 'dialogue management unit 12 (Fig. 4) makes the semantic determination of the response output content according the supplied semantic utterance representation by using a dialogue (conversation) history...' (column 10, lines 25-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa in view of Marx by specifically providing a dialogue management mechanism using a dialogue history, as taught by Takebayashi, for the purpose of

realizing natural and sooth dialogue between the system and a human user, and easy maneuverability of the system (Takebayashi: column 2, lines 19-21).

As per **claim 15**, it recites a method. The rejection is based on the same reason as described for claim 3, because the claim recites the same or similar limitation(s) as claim 3.

8. Claims 4-5 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al. (US 5,946,658) hereinafter referenced as Miyazawa, in view of Petkovic (US 6,185,527 B1) hereinafter referenced as Petkovic.

As per **claim 4**, as best understood in view of the rejection under 35 USC 112 1st, (see above), Miyazawa discloses cartridge-based, interactive speech recognition method with a response creation capability (title), comprising:

“a voice input section inputting voice uttered by a user” (column 6, lines 30-49 and Fig.1, ‘input unit 1, which inputs the speaker’s voice’);

“a voice recognition processing section recognizing the voice inputted by the voice input section, and converting the recognized voice (speech) into an input symbol string” (column 6, lines 30-49 and Fig. 1, ‘to recognize words spoken’, ‘speech recognition (converting the recognized voice) and dialogue management unit 4’, ‘recognizable words (symbol string)’);

“a conversation pattern processing section inputting said input symbol string from the voice recognition processing section, and outputting an output symbol string corresponding to said input symbol string based on a conversation pattern described in advance”, (column 4, lines 1-17 and Fig. 1, ‘conversation content storage for retaining canned context rules (broadly interpreted as conversation pattern(s) described in advance) and response procedures when

Art Unit: 2654

recognized words or phrases (symbol string) are encountered (input)', response data storage for retaining response voice vector data used in formulating an appropriate response to perceived and recognized words and corresponding context and action rules'; Fig. 1 and column 6, lines 38-42, 'speech recognition and dialogue management unit 4', 'response (output) data memory unit 4, which stores pre-set (described in advance) response data (necessarily including symbol string, since it will output to a voice synthesis unit 6)');

"a voice synthesis processing section converting said output symbol string from the conversation pattern processing section into voice" (Fig. 1 and column 6, lines 38-42, 'voice synthesis unit 6');

"a voice output section outputting and uttering the voice from the voice synthesis processing section", (Fig. 1 and column 6, lines 38-42, 'voice output unit 7').

Even though Miyazawa discloses a storage section storing words relevant to words uttered by the user (column 18, lines 56-67, 'conversation context memory 101 stores the information related to the kind of phrases which have been registered and the kind of responses that should be issued to each of these registered phrase'), Miyazawa does not expressly disclose "a second recognition processing section recognizing broadcast voice from a broadcast station, and converting the recognized broadcast voice into second input symbol strings" and "an event data storage section [, classifying said input symbol strings according to subject matter and] storing said second input symbol strings as event data." However, this feature is well known in the art as evidenced by Petkovic who discloses system and method for automatic audio content analysis for word spotting, indexing, classification and retrieval (title), comprising database 26, audio source 28, such as a broadcast network, or radio station, speech recognition engine

Art Unit: 2654

(necessarily converting speech (voice) into text (symbol strings) (column 6, lines 48-67); and a data storage device having computer usable code means for classifying and indexing (herein inherently include storing) audio signals representing audio events, including using a speech recognition engine to render words (symbol strings) and alternatives to some words, meta pattern (subject matter) (column 17, lines 23-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa by specifically providing a speech recognition mechanism for broadcast audio source and a data storage for storing event data related to the audio processing, as taught by Petkovic, for the purpose of recognizing many audio applications benefiting from a more generalized ability, based on predetermined audio events (Petkovic: column 2, line 67 to column 3, line 4).

As per **claim 5** (depending on claim 4), as stated above, Petkovic discloses using broadcast audio source (column 6, lines 48-67), using a data storage device and a speech recognition engine to render words (symbol strings) and alternatives to some words from (column 17, lines 23-56), which suggests the combined system is capable of implementing functionality as claimed "extracting only a symbol string desired by the user among said second input symbol strings converted by said second voice recognition section, and storing the extracted symbol string in said event data storage section". Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa by specifically providing a mechanism for extracting only words among from broadcast audio source and storing them, as taught by Petkovic, for the purpose of recognizing many audio applications benefiting from a more generalized ability, based on predetermined audio events (Petkovic: column 2, line 67 to column 3, line 4).

As per **claim 16**, it recites a method. The rejection is based on the same reason as described for claim 4, because the claim recites the same or similar limitation(s) as claim 4.

As per **claim 17** (depending on claim 16), the rejection is based on the same reason as described for claim 5, because the claim recites the same or similar limitation(s) as claim 5.

9. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa in view of Petkovic as applied to claims 4 and 16 above, and further in view of Wang et al. (US 6,505,162 B1) hereinafter referenced as Wang.

As per **claim 6** (depending on claim 4), even though Miyazawa discloses changing said output symbol string in accordance with the grasped conversation characteristics (column 5, lines 12-14, 'conversation and response information can be changed or updated as the general culture (broadly interpreted grasped conversation characteristics) changes'; column 12, lines 20-22, 'when a recognition word is determined, speech recognition and dialogue manager 4 comprehends (grasp) the meaning of the input voice, determine a response ... detects fluctuation data'), Miyazawa in view of Petkovic does not expressly disclose "a conversation characteristic control section grasping conversation characteristics of said user based on said input symbol string from said conversation pattern processing section". However, this feature is well known in the art as evidenced by Wang who discloses apparatus and method of a portable dialogue management using a hierarchical task description table (title), comprising a conversational dialogue manager that has a standard control mechanism (a conversation characteristic control section), selects (grasp) appropriate dialogue states (broadly interpreted as conversation characteristics of the user), executes the response actions, extracts (grasp) the domain-dependent

factors (conversation characteristics of the user), controls the dialogue flow according to semantic input (necessarily including recognized and comprehended meaning of the input voice stated above) of a user and the instruction provided by the external knowledge base to generate semantic output in response, replaces the knowledge base (column 5, lines 43-64), and update the dialogue flow (column 6, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa in view of Petkovic by specifically providing a control mechanism for dialogue (conversation) management, as taught by Wang, for the purpose of increasing flexibility for a dialogue management. (Wang: column 4, lines 5-7).

As per **claim 18** (depending on claim 16), the rejection is based on the same reason as described for claim 6, because the claim recites the same or similar limitation(s) as claim 6.

10. Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa in view of Petkovic as applied to claims 4 and 16 above, and further in view of Marx.

As per **claim 7** (depending on claim 4), even though Miyazawa discloses a storage section storing words relevant to words uttered by the user (column 18, lines 56-67, 'conversation context memory 101 stores the information related to the kind of phrases which have been registered and the kind of responses that should be issued to each of theses registered phrase'), Miyazawa in view of Petkovic does not expressly disclose storing the words being "**synonyms**", and "an association function section extracting the synonyms and relevant words synonymous with and relevant to words uttered by said user from said storage section based on said input symbol string from said conversation pattern processing section, and outputting said

Art Unit: 2654

extracted synonyms and relevant words to said conversation pattern processing section”.

However, this feature is well known in the art as evidenced by Marx who discloses system and method for developing interactive speech applications (title), comprising dialogue modules (abstract), processing user response by using synonyms (column 9, lines 30-39), editing items and synonyms of the vocabulary using a predefined system dictionary, listing synonyms under their items at an indented tier, and adding, deleting, highlighting (broadly interpreted as association function of extracting) synonyms of an recognized item (column 19, lines 16-33, and Figs. 12 and 13), which corresponds to the claimed limitation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa in view of Petkovic by specifically providing storing and extracting synonyms and relevant words for the recognized words, as taught by Marx, for the purpose of offering alternative terms of the recognized items for a dialogue module (Marx: column 19, lines 10-13).

As per **claim 19** (depending on claim 16), the rejection is based on the same reason as described for claim 7, because the claim recites the same or similar limitation(s) as claim 7.

11. Claims 8, 12, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa in view of Petkovic, and further in view of Kanevsky et al. (US 6,236,968 B1) hereinafter referenced as Kanevsky.

As per **claim 8**, as best understood in view of the rejection under 35 USC 112 1st, (see above), Miyazawa discloses cartridge-based, interactive speech recognition method with a response creation capability (title), comprising:

Art Unit: 2654

“a voice input section inputting voice uttered by a user”, (column 6, lines 30-49 and Fig. 1, ‘input unit 1, which inputs the speaker’s voice’);

“a voice recognition processing section recognizing the voice inputted by the voice input section, and converting the recognized voice (speech) into an input symbol string”, (column 6, lines 30-49 and Fig. 1, ‘to recognize words spoken’, ‘speech recognition (converting the recognized voice) and dialogue management unit 4’, ‘recognizable words (symbol string)’);

“a conversation pattern processing section inputting said input symbol string from the voice recognition processing section, and outputting an output symbol string corresponding to said input symbol string based on a conversation pattern described in advance”, (column 4, lines 1-17 and Fig. 1, ‘conversation content storage for retaining canned context rules (broadly interpreted as conversation pattern(s) described in advance) and response procedures when recognized words or phrases (symbol string) are encountered (input)’, response data storage for retaining response voice vector data used in formulating an appropriate response to perceived and recognized words and corresponding context and action rules’; Fig. 1 and column 6, lines 38-42, ‘speech recognition and dialogue management unit 4’, ‘response (output) data memory unit 4, which stores pre-set (described in advance) response data (necessarily including symbol string, since it will output to a voice synthesis unit 6)’);

“a voice synthesis processing section converting said output symbol string from the conversation pattern processing section into voice”, (Fig. 1 and column 6, lines 38-42, ‘voice synthesis unit 6’);

“a voice output section outputting and uttering the voice from the voice synthesis processing section”, (Fig. 1 and column 6, lines 38-42, ‘voice output unit 7’).


Even though Miyazawa discloses a storage section storing words relevant to words uttered by the user (column 18, lines 56-67, 'conversation context memory 101 stores the information related to the kind of phrases which have been registered and the kind of responses that should be issued to each of these registered phrase'), Miyazawa does not expressly disclose "an event data storage section [, classifying said input symbol strings according to subject matter and] storing said received event data." However, this feature is well known in the art as evidenced by Petkovic who discloses system and method for automatic audio content analysis for word spotting, indexing, classification and retrieval (title), comprising database 26, audio source 28, such as a broadcast network, or radio station, speech recognition engine (necessarily converting speech (voice) into text (symbol strings) (column 6, lines 48-67); and a data storage device having computer usable code means for classifying and indexing (herein inherently include storing) audio signals representing audio events, including using a speech recognition engine to render words (symbol strings) and alternatives to some words, meta pattern (subject matter) (column 17, lines 23-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa by specifically providing a speech recognition mechanism for broadcast audio source and a data storage for storing event data related to the audio processing, as taught by Petkovic, for the purpose of recognizing many audio applications benefiting from a more generalized ability, based on predetermined audio events (Petkovic: column 2, line 67 to column 3, line 4).

Miyazawa in view of Petkovic does not expressly disclose a mechanism "transmitting said input symbol string to the other interactive system as event data, and receiving event data consisting of a symbol string from said other interactive system". However, this feature is well

Art Unit: 2654

known in the art as evidenced by Kanevsky who disclose that an automatic dialog system includes a speech recognition module and a speech generation module (abstract), comprising an external service provider adapter 122 for facilitating communications between the dialog car system and a remotely located external service provider 123, the external provider receives alert signals (necessarily includes some symbol string) and the actual content of conversation will be transferred from the external service provider 123 to the conversational planner 107 (column 5, lines 22-64 and Fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miyazawa in view of Petkovic by specifically providing a mechanism for transmitting processed data (symbol string) from one interactive system to the other, as taught by Kanevsky, for the purpose of updating the appropriate modules with new data (Kanevsky: column 5, lines 40-51).

As per **claim 12** (depending on claim 8), Petkovic further discloses audio source, such as a broadcast network, or radio station, speech recognition engine (necessarily converting speech (voice) into text (symbol strings) (column 6, lines 48-67), and a data storage device having computer usable code means for classifying and indexing (herein inherently include storing) audio signals representing audio events, including using a speech recognition engine to render words (symbol strings) and alternatives to some words (column 17, lines 23-56), which corresponds to the claimed "a second recognition processing section recognizing broadcast voice from a broadcast station, and converting the recognized broadcast voice into second input symbol strings" and "an event data storage section storing said second input symbol strings as event data". Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system as stated above by specifically providing



Art Unit: 2654

a speech recognition mechanism for broadcast audio source and a data storage for storing event data related to the audio processing, including speech recognition, as taught by Petkovic, for the purpose of recognizing many audio applications benefiting from a more generalized ability, based on predetermined audio events (Petkovic: column 2, line 67 to column 3, line 4).

As per **claim 20**, it recites a method. The rejection is based on the same reason as described for claim 8, because the claim recites the same or similar limitation(s) as claim 8.

As per **claim 24** (depending on claim 20), the rejection is based on the same reason as described for claim 12, because the claim recites the same or similar limitation(s) as claim 12.

12. Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa in view of Petkovic and Kanevsky as applied to claims 8 and 20 above, and further in view of Wang.

As per **claim 10** (depending on claim 8), the rejection is based on the same reason as described for claim 6, because the claim recites the same or similar limitation(s) as claim 6.

As per **claim 22** (depending on claim 20), the rejection is based on the same reason as described for claim 10, because the claim recites the same or similar limitation(s) as claim 10.

13. Claims 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa in view of Petkovic and Kanevsky as applied to claim 8 above, and further in view of Marx.

As per **claim 11** (depending on claim 8), the rejection is based on the same reason as described for claim 7, because the claim recites the same or similar limitation(s) as claim 7.

Art Unit: 2654

As per **claim 23** (depending on claim 20), the rejection is based on the same reason as described for claim 11, because the claim recites the same or similar limitation(s) as claim 11.

Allowable Subject Matter

14. Claims 2, 9, 14 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reason for the allowable subject matter is based on the same reason as described in the previous office action (see office action filed on 09/23/2004).

15. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the

Art Unit: 2654

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Please address mail to be delivered by the United States Postal Service (USPS) as follows:

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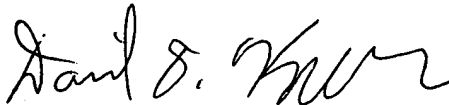
Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (571) 272-7604. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (571) 272-7602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

QH/qh
June 30, 2005


DAVID D. KNEPPER
PRIMARY EXAMINER